

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

Patent claims

1. (ORIGINAL) A method for the high-pressure filling of a pressure vessel with a gas or gas mixture, in which the pressure vessel is cooled and filled with at least one gas at a temperature above the boiling temperature of the gas, is closed in the cooled state and a pressure is produced in the filled and closed pressure vessel by warming.

2. (ORIGINAL) The method as claimed in claim 1, characterized in that a pressure of more than 100 bar or of more than 200 bar or of more than 300 bar is produced in the filled pressure vessel by warming the gas or gas mixture.

3. (CURRENTLY AMENDED) The method as claimed in claim 1 [[or 2]], characterized in that the warming of the gas is effected by active heating or by temperature equalization to room temperature, ambient temperature, a temperature above 0°C or another temperature.

4. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 3~~ claim 1, characterized in that a pure gas with a
boiling temperature of less than minus 50°C or a gas mixture
whose highest-boiling gas component has a boiling temperature
of less than minus 50°C is used for filling.

5. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 4~~ claim 1, characterized in that the filling of
the pressure vessel takes place at a temperature of at least
minus 50°C or below.

6. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 5~~ claim 1, characterized in that the filling of
the pressure vessel takes place at constant or substantially
constant temperature.

7. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 6~~ claim 1, characterized in that a cooled pressure
vessel is used during the filling of the pressure vessel, the
cooling being effected by means of a refrigeration bath, a
cooling block, a cold gas, cold solid particles or other
refrigerants or a cooling device which can be thermostated.

8. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 7~~ claim 1, characterized in that the determination

and monitoring of the filling quantity during the filling operation are effected manometrically.

9. (CURRENTLY AMENDED) The method as claimed in ~~one of~~ ~~claims 1 to 8~~ claim 1, characterized in that during the filling of the pressure vessel the pressure vessel is connected to a compressed-gas source, the compressed-gas source being at a temperature which is above the temperature of the pressure vessel.

10. (CURRENTLY AMENDED) The method as claimed in ~~one of~~ ~~claims 1 to 9~~ claim 1, characterized in that during the filling of the pressure vessel the pressure vessel is connected to a compressed-gas source, and the temperature of pressure vessel and compressed-gas source differ by at least 50°C and/or the temperature of the gas or gas mixture in the pressure vessel and compressed-gas source differ by at least 50°C.

11. (CURRENTLY AMENDED) The method as claimed in ~~one of~~ ~~claims 1 to 10~~ claim 1, characterized in that the pressure vessel is filled with a gas mixture by filling with a previously produced gas mixture or by successive filling with the gas components of the gas mixture that is to be produced.

12. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 11~~ claim 1, characterized in that the filling of
the pressure vessel is carried out with a pressurized gas or
gas mixture.

13. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 12~~ claim 1, characterized in that the filling of
the pressure vessel takes place at a pressure of at least 10
bar absolute.

14. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 13~~ claim 1, characterized in that the filling of
the pressure vessel takes place at a pressure in the range
from 50 to 400 bar absolute.

15. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 14~~ claim 1, characterized in that the filling of
the pressure vessel is carried out using a precooled gas or
gas mixture.

16. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 15~~ claim 1, characterized in that the gas or gas
mixture is precooled to the filling temperature.

17. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 16~~ claim 1, characterized in that a pressurized
refrigerant is used for the cooling, or the temperature is
set, controlled or regulated during cooling by the action of
pressure.

18. (CURRENTLY AMENDED) The method as claimed in ~~one of~~
~~claims 1 to 17~~ claim 1, characterized by its use in the
filling of airbag gas generators.

19. (ORIGINAL) The use of a gas or gas mixture with a boiling
temperature at a standard pressure of less than minus 200°C
for the filling of cooled pressure vessels of airbag systems.

20. (ORIGINAL) The use as claimed in claim 19, characterized
in that a gas or gas mixture containing at least 50% by volume
of hydrogen or helium is used.

21. (ORIGINAL) The use of an apparatus comprising at least one
compressed-gas source, at least one pressure vessel with
cooling device, a connecting line between compressed-gas
source and pressure vessel, and at least one valve, for
filling pressure vessels of airbag systems with at least one
gas or gas mixture without mechanical compression.